

PROCESS AND APPARATUS FOR ISOTOPE SEPARATION IN LOW-GRAVITY ENVIRONMENT

Abstract

A process and apparatus for separating element isotopes in a microgravity or low-gravity environment using electromagnetic radiation, e.g., sunlight, to heat and ionize a stream of raw materials, followed by electromagnetic separation, and collection of the desired isotopes in or on one or more collection surfaces or receptacles, such as a rotating surface. A cylindrical mirror can serve to collect and concentrate the electromagnetic radiation, permitting the stream of material to be heated and ionized while the path of the stream of material is oriented other than parallel to the direction of the radiation.